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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/517,518   | 03/02/2000  | Jacques Wong         | 52352-317           | 4862             |
| 20277  | 7590        | 07/01/2005           | EXAMINER            |                  |
| MCDERMOTT WILL & EMERY LLP<br>600 13TH STREET, N.W.<br>WASHINGTON, DC 20005-3096 |             |                      | THOMPSON, ANNETTE M |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2825                |                  |

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

28

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/517,518 | <b>Applicant(s)</b><br>WONG ET AL. |  |
|                              | <b>Examiner</b><br>A. M. Thompson    | <b>Art Unit</b><br>2825            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2,5-10 and 12-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 2 and 5 is/are allowed.  
6) ☒ Claim(s) 10,12 and 13 is/are rejected.  
7) ☒ Claim(s) 6-9 and 14-17 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 05 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicants' Amendment Under 37 C.F.R. 1.111 has been examined. The specification and drawings are amended. Claims 2, 5, 6, 7, 9, 10, and 12-17 are amended. Claims 3 and 11 are cancelled. Claims 2, 5-10, and 12-17 are pending.

1. Applicants' amendment is persuasive in part. Upon further consideration and review, new grounds of rejection are herein entered.

#### ***Drawings***

2. The drawings are objected to: At Figure 4, #'s 68A-C, place letter A-C next to Sub-Module; at box #71, Analysis is misspelled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

Art Unit: 2825

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

3. Claims 6, 9, and 14 are objected to because of the following informalities: Pursuant to claim 6, at line 6, "sub-modules" should be singular. Pursuant to claim 9, at line 1, delete "on". Pursuant to claim 14, at line 2, after "generated" delete "for". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 10, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Dupenloup, U.S. Patent 6,295,636.

6. Pursuant to claim 10 which recites [a] method of synthesizing a RTL based design of a system (col. 4, ll. 28-32; col. 3, ll. 20-23) comprising the steps of determining sub-modules of a top-level system (col. 4, ll. 4-12); determining individual time budgets for each sub-module based on timing requirements of the top level system (col. 42, ll. 29-31; col. 43, ll. 8-15; Fig. 19); synthesizing a gate level design of said each sub-module based on the determined time budgets for said each sub-module (Fig. 19

Art Unit: 2825

illustrates this step; col. 43, ll. 16-21); generating a netlist for the gate level design of said each sub-module (col. 1, ll. 34-35 discloses that RTL code is synthesized to generate a gate level design or netlist, i.e. the process of synthesis produces a gate level netlist; col. 43, ll. 15-25; see also col. 67, ll. 1-11); integrating the netlist of said each sub-module to form an integrated top level design netlist (fig. 14 illustrates the integration of sub-modules to form a top-level design; see also col. 41, ll. 1-13); testing the integrated top-level design netlist for conformance with top-level design requirements (col. 30, ll. 12-57, wherein the netlist analysis involves testing; col. 42, line 63 to col. 43, line 25); and generating a top-level netlist when the integrated top-level design netlist conforms to the top-level design requirements (Fig. 19, #456 illustrates the generating of a final netlist).

7. Pursuant to claim 12, further comprising testing the gate level design of said each sub-module for conformance with design requirements of said each sub-module prior to integrating the netlists to form the integrated top-level design netlist (col. 30, ll. 12-57, wherein the netlist analysis involves testing; see also Fig. 1, #110).

8. Pursuant to claim 13, wherein testing the gate-level designs of said each sub-module includes performing static timing analysis on said each sub-module for conformance with timing requirements for said each sub-module (col. 11, line 55 to col. 12, line 42; col. 12, ll. 43-48; col. 13, ll. 33-36; Figs. 3A-3C).

***Allowable Subject Matter***

9. Claims 2 and 5 are allowed.

Art Unit: 2825

10. Claims 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 6-9 are also objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is one reason for the indication of allowable subject matter: In a method of synthesizing a RTL based design of a system, the prior art does not disclose generating a netlist for design sub-modules when the gate level design of each sub-module conforms to specified design requirements of each sub-module.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2825

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications should be directed to Examiner A.M. Thompson whose telephone number is (571) 272-1909. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 4:30 p.m..

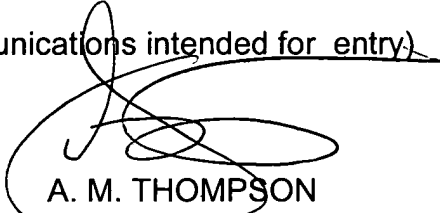
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

15. Responses to this action should be mailed to the appropriate mail stop:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for all **OFFICIAL** communications intended for entry.)

  
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